

ENERGY CODE SUMMARY INFORMATIONAL HANDOUT

Construction Code Services Division Informational Bulletin Revised April 2010

History of the Minnesota State Energy Code to 2010

Excerpt from Department of Energy Web site: http://www.energycodes.gov/states/state info.php?stateAB=MN

A state law was enacted in 1975 to require building design and construction standards consistent with the most efficient use of energy. In response, an energy code became effective on January 30, 1976, as part of the state building code.

The energy code was revised in 1977 and 1978 to incorporate ASHRAE/IES Standard 90-75 requirements.

The energy code was revised in 1984 to adopt the 1983 MEC and the insulation provisions of the HUD Minimum Property Standards for residential construction (including foundation wall insulation for residential buildings).

A 1991 revision adopted the 1989 MEC. Statutes were enacted in 1991 setting higher goals for the energy code. One statute required that the energy code requirements for commercial buildings be at least as stringent as ASHRAE/IESNA 90.1-1989. Another statute specified that the lighting standards be at least as stringent as the "current" requirements for new federal buildings (10 CFR Part 435.) (Note: this statute was repealed in 1999 with the legislation discussed below.)

In 1991, code amendments were related to the air tightness of buildings, wind wash barriers, and other provisions to ensure performance of installed thermal insulation and durability of structural elements. Code revisions adopted June 1994 provided for minimum criteria for residential buildings (termed Category 2), and an optional higher criteria (termed Category 1.) All commercial buildings, and residential buildings over three stories in height, were required to meet a state amended version of ASHRAE/IESNA 90.1-1989. One- and two-family dwellings, and multi-family residential buildings three stories or less in height, were required to meet a state code based on the 1992 MEC.

Changes were adopted for the commercial building energy code (Minn. Rules Chapters 7676 and 7678) on November 4, 1997. These revisions, which became effective July 20, 1999, provided minimum criteria for energy efficiency standards for commercial buildings.

In 1999, legislation (Laws of Minn. 1999, Chapter 135) transferred the authority for rule-making to the Minnesota Department of Administration, Building Codes and Standards Division. Laws of Minnesota 2000 Chapter 407 gave builders an alternative to the new rules: instead of following Chapter 7672, they could meet the provisions of Minnesota Rules 7670 (the energy code adopted in 1994) that apply to Category 1 buildings, plus some additional requirements regarding ventilation and heating and exhaust systems.

New energy code rules went in effect for residential building permits beginning April 15, 2000. They applied to detached

single-family and two-family dwellings (classified as Group R, Division 3 Occupancies). The 2000 Minnesota legislature also gave builders an alternative to the new rules: instead of following Chapter 7672, they could meet the provisions of Minnesota Rules 7670 (the energy code adopted in 1994) that apply to Category 1 buildings, plus some additional requirements regarding ventilation and heating and exhaust systems. For remodeling and multi-family homes, the builder must comply with either Chapter 7672 or 7670. (If 7670 rules are followed, the additional ventilation and other mechanical requirements do not apply.)

After authority over energy codes was transferred to the Building Codes and Standards Division (within the Construction Codes and Licensing Division) in the Department of Labor & Industry, significant effort was made to transition the Minnesota building community from a purely state-developed code to one aligned more closely to the national model codes. In 2008, after seven and a half years, the state adopted new residential and commercial energy codes based on the 2006 IRC and ASHRAE 90.1-2004, respectively. Officials hope to streamline this process in the future and update the state codes more frequently.

On June 1, 2009, the 2009 Minnesota State Building Code (Energy) became effective. The new residential energy code (Chapter 1322) has been simplified to the point that in virtually all cases a REScheck-like program is not needed to show code compliance. The code now simply requires minimum R-values and maximum U-factors for building components without regard to square footage of those elements. A REScheck for the new Minnesota code is not currently available. Other alternatives are listed in the code at Part 1322.1102.

COMcheck is not yet available for the new commercial energy code (Chapter 1323), but commercial building envelope and lighting compliance can be readily determined by available tools. The envelope requirements of the new commercial energy code are not difficult to determine from the two tables (one for northern and the other for southern Minnesota) in Part 1323.0550. The lighting requirements of the code are identical to ASHRAE 90.1-2004, with the exception of exterior building grounds and parking lot lighting (Part 1323.0944). To demonstrate lighting compliance, simply start COMcheck and select "Code: 90.1 (2004) Standard" for all but building grounds and parking lot lighting.

In 2009, Minn Chapter Law 110 established Sustainable Building 2030. The Center for Sustainable Building Research and the University of Minnesota is developing SB2030 performance standards.